What's NEW

Tell them you saw it in Monitoring Times

Larry Van Horn, New Products Editor

Sangean DT-110CL

This Sangean DT-110CL digital AM/FM stereo pocket radio weights less than five ounces yet packs a terrific wallop which includes auto-scan, auto-preset and one touch recall of your preset stations. For such a small package the 110CL provides the listener with extraordinary sensitivity and selectivity, clear audio quality and performance.

This ultra compact 110CL can pull in most weak stations that you were probably never able to receive before. Deep Bass Boost (DDB) provides extra bass boost needed when you listening to your favorite FM music stations. Your earphone acts as an FM antenna and built-in ferrite core AM antenna provide you great AM reception. Manual tuning is easy and storing your favorites is just as easy. If you're seeking an amazingly compact digital AM/FM pocket radio, you'll have to go long way if you can find any better.

Some of the features you will find in this compact portable include: PLL synthesized digital tuning; 24 memory presets; stereo headphone jack; LCD display; 90 minute auto shutoff; frequency coverage FM 87.5-108 MHz/AM 520-1710 kHz; and deep bass boost.

The Sangean DT-110CL portable receiver measures 3 4/5-inches wide by 2 2/5-inches high by 4/5-inch deep and weighs 2.6 ounces. This compact portable is available from Grove Enterprises and sells for $42.00.

Alinco DR-635T

The Alinco DR-635T is a new twin band mobile transceiver that has transmit capability in the amateur 2-meter and 70 cm bands with transmit coverage from 144 to 147.995 and 430-449.995 MHz. The unit has expanded receive coverage from 87.5 to 173.995 and 335 to 480 MHz. This includes the VHF air band in AM mode and the FM broadcast band in Wide FM mode. A dual band receiver is available with VHF/VHF, UHF/UHF, VHF/UHF and UHF/VHF capability and cross-band repeat is supported. 200 alphanumeric memories are available for storing transmit and receive frequencies.

Power output of the DR-635T on VHF is 50/20/5 watts and in the 70cm UHF band 35/20/5 watts.

The large, easy-to-read three color (blue, violet or amber) LCD shows status icons and six character alphanumeric tags. CTCSS & DCS encode/decode/scan is included plus four different tone bursts. Other features include: Auto power off, time out timer, tone burst, scan, channel lock-out, dimmer, VFO auto program, narrow FM, power supply and voltage display. The front panel can act as a remote via the optional EDS-9 separation kit. A fan on the rear panel insures cool operation during transmit. The advanced 10F3 digital mode with speech compression technology is available via an optional EJ-47U board and 1200/9600 bps packet operation can be performed with an optional EJ-50U.

The supplied EMS-57 electret condenser DTMF hand microphone supports parameter setting and direct frequency entry. The radio also comes with DC cable, mobile mounting bracket with hardware, anti-theft (ACC on/off) function cable and anti-theft sticker.

Alinco DR-635T Specifications

General

Frequency range
TX: VHF 144-147.995 MHz and UHF 430-449.995 MHz
RX: 87.5-107.995MHz (WFM), 108-173.995 MHz and 335-479.995 MHz

Modulation: 16K0F3E (FM), 8K50F3E (Narrow FM), F1E (digital voice), F1D (9600bps)/ F2D (1200bps), A3E (RX only/AM)

Channel Steps: 5, 8.33, 10, 12.5, 15, 20, 25, 30, 50, 100 KHz

Memory channel: VHF 80 channels / UHF 80 channels / Free-programmable 40 channels / one channel VHF Call and one channel UHF Call.

Antenna impedance: 50 ohm unbalanced, internal duplexer - single antenna connector

Frequency stability: +/- 2.5 ppm

Power Supply Requirement: 13.8V DC +/- 15% negative ground

Current Drain: Approximately 11amps transmit high / 700 mA receive maximum / 500 mA receive squelched

Usable temperature range: -10c to +60c (14F to 140F)

Dimensions: 5.5-inches wide by 1.6-inches high by 7.3-inches deep, 140mm (W) X 40mm (H) X 185mm (D)

Weight: Approximately 35.3 ounces or 1-kg

Transmitter

Output: High VHF 50W / UHF 35W, Mid 20W, Low 5W

Modulation System: Variable Reactance Frequency Modulation

Max. Frequency Deviation: +/- 5 kHz (FM) +/- 2.5 kHz (NFM)

Spurious emissions: Less than -60dB

Receiver

Receive system: Double conversion super heterodyne

Intermediate Frequencies: 1st 21.7 MHz/ 450 kHz and 2nd 45.1 MHz/ 455 kHz

Sensitivity (-12dB SINAD): Main band -14dBu (0.20uV) or better/Sub band -12dBu (0.25uV) or better

Squelch: -18 dBu (0.1uV) or less

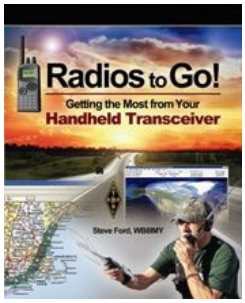
Selectivity: FM: -6dB: 12 kHz or more, -60dB: 28 kHz or less

Audio Output: 2W or more (8ohm 10% THD)

The DR-635T is available from Grove Enterprises for $320.

Radios to Go!

Modern technology has allowed manufacturers to pack a wealth of features into handheld transceivers. With so many features, however, it isn't always easy to get the full benefit from your investment. Even the user manuals don't tell the whole story. Your radio may have "hidden" capabilities that aren't described in the manual at all.



For example, did you know that a dual-band 2-meter/70 cm handheld transceiver can be used to communicate through amateur radio satellites? It's true, but you usually won't see this discussion in your average user manual.

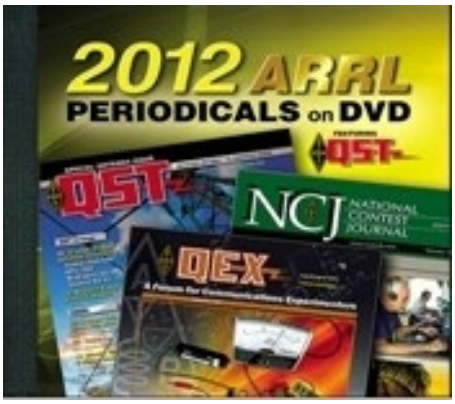
If you own a handheld transceiver, or if you're trying to decide which transceiver to buy, *Radios to Go!* by Steve Ford WB8IMY, is the essential guide. Some of the helpful topics covered in this ARRL publication include:

- Why Are They Called HTs? (And Which One Should I Buy?)
- The Care and Feeding of Batteries
- Memories
- Scanning
- Alphabet Soup: CTCSS, DTMF and DCS
- IRLP and EchoLink
- Antennas
- Microphones and Headsets
- Software Management
- Expanding Your Horizons: APRS and Satellites

This 112 page soft cover publication sells for $18.00 and is available from ham dealers such as Universal Radio, an *MT* advertiser.

ARRL Periodicals DVD 2012 for Windows and Macintosh

The ARRL's popular print journals are now available on a compact, fully-searchable DVD. Every word and photo published during 2012 is included! The three publications included on this DVD include: *QST* – The official membership



journal of ARRL, *NCJ National Contest Journal,* and *QEX* – the forum for communications experimenters. In addition, the 2012 periodicals DVD includes source code for software projects and PC board patterns, section news, contest soapbox and results.

This DVD is fully searchable. You can search the full text of every article by entering titles, call signs, names – any word. You can see every word, photo (most in color), drawing and table in technical and general-interest features, columns and product reviews, plus all advertisements published in the ARRL's publications in 2012. And you can print what you see, or copy it into other applications.

System Requirements: Microsoft Windows and Macintosh systems, using the industry standard Adobe® Acrobat® Reader® software. The Acrobat Reader is a free download at **www.adobe.com**. Windows 8 compatible. DVD requires Microsoft Windows or Macintosh.

This DVD sells for $25.00 and is available from ham dealers such as Universal Radio.

MS-8118 G3 Multichannel Radio Monitoring System

The task of multichannel radio frequency surveillance and monitoring would typically involve a number of separate radio receivers, audio recorders and other discrete components interconnected into bulky and expensive systems.

The WiNRADiO MS-8118/G3 Multichannel Monitoring System provides an elegant, fully integrated solution, specifically designed for computer-controlled automatic monitoring of frequencies ranging from VLF frequencies up to low microwave, in all major modulation modes. The system is designed to monitor radio frequencies on multiple channels simultaneously; record digitized signals on the hard disk for easy later retrieval, and performs automatic decisions based on the received signals.

This system is based on a ruggedized heavy-duty 19-inch rack mounted industrial computer. The front panel features a high-contrast wide-angle display. There is provision for connection of an external keyboard and mouse. The system is capable of simultaneous independent monitoring of up to eight channels from VLF to SHF frequencies.

The built-in hard disk allows a typical storage of several months of continuous recording, and a re-writable CD-ROM or DVD drive makes archiving of recordings easy. The unit is capable of unattended operation and, if the client/server option is fitted, it can be operated remotely via a standard TCP/IP connection such as LAN or the Internet. The recorded audio can also be remotely searched and streamed to the operator.

WiNRADiO software-defined receivers are at the heart of this multichannel radio monitoring system and make it possible to achieve the necessary high level of integration and performance.

Frequencies from 9 kHz up to 8.6 GHz can be monitored and logged. The receivers offer an unparalleled flexibility, given their software-defined architecture, excellent dynamic range, and high sensitivity. Many useful features complement the receivers, making them capable of filling not only the role of a search and monitoring receiver, but also that of a measuring receiver, such as the calibrated S-meter showing the received signal levels in dBm, µV or S-units, down to the -140 dBm noise floor, several spectrum analyzers, and many other features.

The MS-8118/G3 can be custom-fitted with a combination of receivers for different frequency ranges and capabilities, to optimize the system for a specific application and to maintain a minimum cost. The MS-8118/G3 makes it possible for the user to control each individual receiver separately and observe its operational status, as well as set the system parameters for multichannel monitoring and surveillance operations.

Each receiver can operate totally independently, as a high-performance scanner with additional advanced facilities for automated task scheduling, spectrum analysis, signal strength logging, channel occupancy analysis, programmable audio recording, and many other features. Alternatively, the receivers can work in "master/slave" roles, where a "master" search receiver hands off its found frequency to a "slave" for monitoring, while continuing search.

The informative graphical user interface of the MS-8118/G3 system makes it possible for the user to observe the status of the individual receiver channels at a glance, and set-up monitoring tasks for a wide range of applications ranging from conventional logging and time-schedule recording, to sophisticated, fully automated, remotely-controlled radio surveillance operations.

The MS-8118-CSO client/server optional software makes it possible to operate the system remotely via a computer network or a dial-up telephone connection. The software provides a TCP/IP control path for the receivers and streaming audio feedback in real-time.

The software also allows the client (the local computer) to initiate audio recording to the server's hard disk. Associated functions allow the client to search and stream the stored audio files over the network.

The MS-8118-CSO client/server option supports multiple simultaneous client connections (several physically separate users can listen to individual channels of a remote server independently) as well as multiple simultaneous server connections (several users can select amongst several servers). A variety of sampling rates and compression algorithms are supported, for optimum sound quality and storage space.

This WiNRADIO multichannel radio monitoring system is shipped in a specially designed ruggedized 19-inch rack-mounted chassis with built-in shock absorbers, to ensure safe shipping. The unit can then be either removed from the enclosure, or operated from inside it. This is particularly useful for mobile operation.

For stationary applications, various rack-mount options are also available, ranging from single-unit arrangements to large-scale installations. For these, WiNRADiO provides complete turn-key solutions including antennas and antenna distribution units.

The following specifications refer to the standard MS-8108 model. These basic specifications are to be taken as a guide only as the exact types of the receivers and the computer configuration can all be customized to suit customer specific requirements.

Computer: 19-inch rack/panel mount, heavy duty
Receivers: WiNRADiO G3-Series software-defined
Frequency range: 9 kHz to 8.6 GHz (customer-specified)
Power: Selectable 100/120 or 220/240 VAC, 50 or 60 Hz, 110 W max
Dimensions: 19-inch rack-mount, Height: 4U (6.9" = 177mm), Depth: 16.5" (415 mm)
Weight: 42.9 lb (19.5 kg)

The MS-8118 G3 Multichannel Radio Monitoring System is available from Grove Enterprises. Contact Grove Enterprises at 800-438-8155 or 828-837-9200 for current pricing and to order.

Books and equipment for announcement or review should be sent to What's New, c/o Monitoring Times, 7540 Highway 64 West, Brasstown, NC 28902. Press releases may be faxed to 828-837-2216 or emailed to Larry Van Horn, *larryvanhorn@monitoringtimes.com.*

When ordering or inquiring about the products mentioned in this column, be sure to tell them that you saw it in the pages of *Monitoring Times* magazine.